Washington State Transportation Commission

Washington State Comprehensive Tolling Study

Interim Report

Summary

prepared for

Washington State Transportation Commission

by

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Interim Report – Summary

Purpose

The purpose of the study is to help Washington State make policy-level decisions on if, where, when, and how to toll. Although Washington State has had numerous toll facilities in the past, there are none currently in operation with the exception of the Washington State Ferries. The Tacoma Narrows Bridge and the SR 167 HOT Lanes Pilot Project are authorized as toll facilities and currently are under construction. Also, Washington State Department of Transportation (WSDOT) and Puget Sound Regional Council (PSRC) have been studying numerous tolling proposals over the last few years.

Why Toll?

Tolling or Pricing?
We use these similar words in subtly different ways.

Tolling ***is a more general word, referring to any form of collecting a direct user fee on a road.***

Pricing ***refers to the practice of using price to manage traffic.***

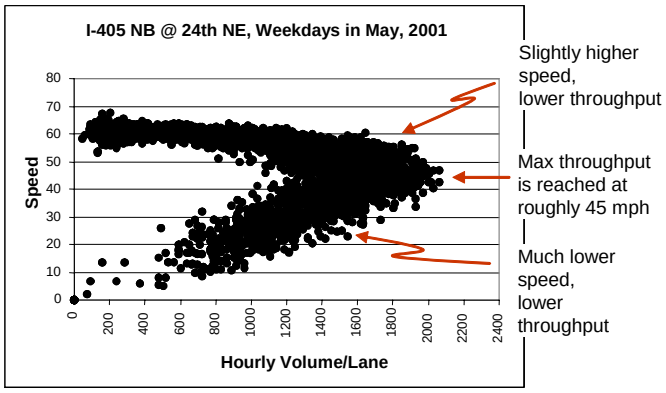
From the ancient turn pikes (where the gate keeper turned the pike to allow travelers to pass after paying their toll) to the 18th century United States, and into the early days of automotive travel, tolling has been used to fund expensive highway projects.

Fast-forward to the early years of the 21st century, where traffic congestion plagues our urban areas, infrastructure built a generation or two ago is deteriorating, and we are faced with enormous gaps between transportation needs and available funds. Our instincts tell us to turn to tolling as a way to pay for new infrastructure. But the world has changed. More funding is not the whole answer. Even if we had enough money, we would likely not build our way out of congestion, particularly given the environmental and social issues.

Technology now lets us price highways to make more effective use of limited resources, just like electric companies charge more during the day than at night to save on expensive infrastructure. Just like airlines and hotels that use pricing to fill seats and rooms during slow periods.

Pricing is not just about generating funds. When applied to highways, pricing has three distinct, yet interrelated benefits:

Pricing can manage traffic to make the system flow more efficiently and reliably. When we jam too many cars onto a highway at one time, lanes that should be able to handle 2,000 vehicles per hour break down, and handle only 500 or 600. If we can manage the amount of traffic that uses a highway during peak times, we can achieve the higher traffic flow rates. If we can manage traffic effectively, it may mean that we can serve more commuters and business during the peak and the "need" for more and bigger facilities can be reduced – just like the electric utilities can avoid building new power plants if they manage peak demand. This cuts down on the cost of building our infrastructure.



Pricing saves people time, and time is money. Congestion in the Puget Sound is estimated to cost us $1.23 billion dollars a year.[1] By pricing the system to operate more efficiently and reliably, the resulting time savings are a bonus to the economy and to society. Business people and trucks can cover more territory and waste less time, improving productivity. Parents spend less time commuting and more time with their children.

Pricing generates revenue. This revenue can contribute to the construction and operation of the transportation system.

Using tolling to fund projects in the traditional way – one by one, yields some revenue but only a portion of the time savings possible through pricing concepts.

A common reaction to the idea of tolling is that it represents double taxation – "I paid for this road with the gas tax." Charging a price to cross a bridge is reasonable, and is a common means of funding. Today's lack of tolls in Washington State is an anomaly –

[1] Texas Transportation Institute, *2005 Urban Mobility Study*, reflects data for 2003.

virtually all of the major bridges in Washington State were built with tolls, at toll rates ranging from $1.33 to over $23 when adjusted for inflation. Pricing can be seen as an extension of the current gas tax system and enhances our current roadway investment by insuring that it operates efficiently and reliably.

We can extend this argument from traditional tolling to modern road pricing. Some parts of the system are more valuable when space is limited. Charging a premium for highway use during those periods is reasonable. The story below illustrates this point.

In his recent book, "Mobility – America's Transportation Mess and How to Fix It," Joseph M. Giglio, Executive Professor at the Graduate School of Business at Northeastern University tells an apt parable that makes the case for highway pricing.

One of the nation's most unusual movie theaters is the Bijou, in an otherwise typical northern California town that we will call Santa Rosita to avoid embarrassing anyone.

Until four years ago, it was no different from any other small-town American movie theater trying to survive on modest ticket sales as the town's last outpost of a vaguely Art Deco Hollywood culture that had largely disappeared elsewhere. But things changed when the elderly owner died of lung cancer and his widow announced that she was going to sell out to a local real estate developer who planned to convert the Bijou into a combination private gym and sports medicine office building (with each use presumably complementing the other).

For reasons that have never been fully explained but may be obvious, this announcement created a groundswell of dismay throughout the town at the prospect of losing its only traditional movie theater. This dismay reached such proportions that the town's government found itself pressured into buying the Bijou from the owner's widow to keep it open showing movies.

And in a burst of civic enthusiasm […] the government proceeded to abolish all admissions charges. Henceforth, the Bijou would be open to everyone at no cost "just like a city park or swimming pool," the mayor proclaimed with great pride. Ever since, the Bijou's operating costs have been funded entirely by Santa Rosita's taxpayers through the municipal budget.

Needless to say, this free-movie policy has led to a considerable change in the Bijou's attendance patterns. Virtually no one goes to the movies on weekday afternoons anymore. Even on weekday evenings, the Bijou rarely has more than a handful of moviegoers.

But on weekends when the local schools and most businesses are closed, the picture changes dramatically. The Bijou is full of people eager to enjoy its free movies, with many more waiting patiently in long lines outside for seats to become available. And when the Bijou is playing an especially popular film, those waiting lines begin forming early in the morning well in advance of the noontime opening, reaching such length that Santa Rosita's police department has to assign several of its all-too-few police officers to control the crowds outside the Bijou.

On its face, this seems like a ridiculous way to operate a movie theater. Everywhere else, movie theaters charge admission for access to their seats. They even charge higher ticket prices on weekend evenings when moviegoer demand is at its peak in order to maximize their box-office revenues (which, not so incidentally, tends to spread out demand by encouraging some moviegoers to attend on weekdays when ticket prices are lower).

But the Bijou has no tickets. Access to its seats is free to everyone. That is, free in the sense of not charging any money for seat access. Considerably less than free when you consider the hours moviegoers have to wait in line for seats to become available on high-demand weekends when everyone wants to see free movies.

As ridiculous as this sounds as a system for operating movie theaters, it is exactly the way the United States operates most of its highways. Access to highway lanes is free to all motorists, regardless of the time of day or day of the week and despite the fact that we must pay for access to every other transportation mode.

Free, that is, in the sense of not charging motorists a dollar price for each mile they travel. But scarcely free when we consider the time these motorists have to spend traveling that mile during periods of high demand when bumper-to-bumper traffic reduces average speeds to about 10 miles per hour.

Until fairly recently, we could offer the excuse that the logistical problems of directly charging motorists for highway use made the whole idea impractical. Charging for highway use meant toll booths where motorists had to stop and pay out cash from their pockets.

[…]

In a world where goods and services aren't available in unlimited quantities, some kind of quantity rationing is inevitable. In the former Leninist nations of Easter Europe, TIME RATIONING was the standard method. The prices of consumer goods were kept low enough for everyone to afford. But consumers had to spend inordinate amounts of time standing in lines to make purchases.

The alternative is PRICE RATIONING. In effect, consumers bid up the price for immediate purchase of a particular good or service until the limited quantity available balances the quantity demanded. This is how the United States rations the supply of most goods and services – with two notable exceptions. One is access to movie seats in Santa Rosita's Bijou Theater. The other is access to virtually all of the nation's roadways. These exceptions use the Leninist concept of time rationing. This favors those who value their time the least and penalizes those who value their time the most (which is not quite the same as saying that the rich and the poor are equally free to sleep under highway overpasses).

[…]

The "pay-as-you-travel" concept for funding highways has a built-in sense of "fairness" that fuel taxes can never enjoy. Now technology lets us carry the fairness concept even further by providing discounts to certain population groups such as the elderly, the disabled, and the working poor (who are often highly auto-dependent and least able to change their commuting times). By explicitly dedicating the revenue from highway charges to transportation purposes only, we avoid the negative perception dogging all government budgets that "too many of my tax dollars are used to support services that only benefit other people." Pay-as-you-travel means that motorists support the highways they use according to how much they use them.

Joseph M. Giglio, *Mobility – America's Transportation Mess and How to Fix It*, The Hudson Institute, 2005. *This excerpt is used by permission.*

Our goal is to have a transportation system that provides for the safe, reliable, timely, and effective movement of people, goods, services, and information to support Washington's economy, communities, and environment. The traditional approach has been to build – new and wider highways, more and faster transit systems. In the 1970s, we realized that there is a limit to how much we can build, and that building has side effects. We sought ways to manage demand – saving construction dollars and reducing environmental impact.

States and regions around the United States are turning to tolling. In addition to the traditional use of tolling to fund expensive bridges, tunnels and highways, there is experimentation with high-occupancy toll (HOT) lanes, express toll lanes, truck only lanes, cordon tolling, and mileage-based pricing.

How Does the *Comprehensive Tolling Study* Address the Issues Facing Washington?

When it opens in 2007, Tacoma Narrows Bridge will be the first nonferry tolling project in Washington since tolls were removed from the Hood Canal Bridge in 1984. Washington also is developing a nine-mile HOT lane project on SR 167 from I-405 in Kent to 15th Street SW in Auburn set to open in 2007-2008 for a four-year experimental period. These projects have not been without their controversies, and if Washington wants to move forward with the tolling concept on other parts of its system, it needs to develop a consistent decision-making framework to ensure equitable treatment around the State.

To this end, the Legislature directed the Washington State Transportation Commission (the Commission) to carry out this study. This interim report issued in January 2006 focuses on policy and implementation issues. Eight background papers ("Volume 2") delve into the details of various issues, and a Policy Report ("Volume 1") synthesizes the results of that work. The final report to be issued in July 2006 will also have technical analysis of several illustrative examples of tolling and pricing projects to give a sense as to how different approaches to tolling might be applied to actual highway locations throughout the State. However, these examples will only be for illustrative purposes and will not be a list of possible projects the Commission recommends be tolled.

Policy and Implementation Questions

We have organized the issues and concern that surround more tolling and pricing in Washington State around eight cross-cutting questions:

1. What role can tolling play in developing and managing Washington's transportation system?
2. How should Washington determine which parts of the system to toll or price?
3. What rules should govern the use of toll revenue?
4. What rules should govern setting toll rates?
5. What is the most appropriate governance and organizational structure?
6. How do technology and toll operations influence toll policy?
7. How do equity, fairness, and uniformity issues influence toll policy?
8. What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

Question 1
What role can tolling play in developing and managing Washington's transportation system?

If we "toll" a bridge, it might generate a revenue stream, perhaps $50 million per year.

If we "price" the bridge to optimize flow we add to that the value of time savings.

If 40,000 people a day save 15 minutes the value of the time savings alone (not counting fuel and emissions) is another $30 million per year.

The Commission recommends that Washington adopt a statewide pricing policy that encourages effective system management. Tolling should also be used to provide a supplementary source of funding for appropriate projects. In all cases, diversion and system efficiency objectives should be recognized.

In a January 2005 report, the Transportation Commission estimated that Washington needs $11.4 billion in additional funding over the next 10 years to address urgently needed transportation programs and projects. Several packages of funding sources were considered, but to put it in simple terms, it would require an increase in the gas tax of 32 cents per gallon to close that funding gap.[2] When faced with the need to fund expensive infrastructure such as bridges, tolling has the potential to supplement the funding plan to enable projects to be built before they could with a limited gas tax funding pool.

[2] Washington State Transportation Commission and Washington State Department of Transportation, *Recommendation on New Funding to Address Critical Transportation Needs Over the Next Decade, A Working Document for the 2005 Legislative Session*, January 2005; Gas tax estimate developed by Cambridge Systematics from data in this report.

Tolls also can be used to restore the balance between transportation system supply and demand. For example, pricing a highway with higher tolls imposed during periods of peak demand can cause travelers to consider the value of their trip and either switch to nonpeak times, carpool, switch to transit, or change their destination.

When transportation demand better matches capacity, the entire system flows better. These time savings provide real economic value that exceeds the cost of the tolls being paid.

Pricing can be applied in a variety of ways. Express toll lanes and high-occupancy toll (HOT) lanes are being advanced around the country, and HOT Lanes are being tried in Washington on SR 167. Variable pricing by time of day on bridges can help spread traffic demand beyond the peak travel periods. Trucks transporting freight congest traffic during peak use periods, and differential truck tolls during these times might cause the logistics supply chain to operate differently to let trucks travel at night and, therefore, make better use of overall system capacity. Truck-only toll lanes also are a possibility.

PierPASS Manages Peak Traffic Demands at the Ports of Los Angeles and Long Beach

The Ports of Los Angeles and Long Beach had a problem. Historically, Ports only operated in the daytime. Therefore, all freight had to move on the roads and railroads during the day when non-freight traffic was heaviest. This caused delays for freight traffic and also raised community and environmental concerns. There was plenty of capacity, just at the wrong times of day. Limited hours of port operation made spreading peak loads impossible, yet simply expanding the hours of port operation would not be enough to make sure that shippers actually used the added hours.

The PierPASS OffPeak program began in July 2005. It assesses a fee of $80 per 40-foot container for cargo that moves through truck gates at the ports during peak hours (Mondays-Fridays, 3:00 a.m. to 6:00 p.m.

Pier Pass supports expanded Port operation hours (maximizing Port output) by providing an economic incentive to move containers during off-peak times, spreading demand, minimizing congestion, and optimizing throughput. Shippers whose warehousing and distribution facilities off-port can operate 24/7 can benefit. During the first two weeks of operation, about 30 percent of freight traffic was shifted off-peak, thereby reducing congestion.

Ultimately, pricing the entire system will be technically possible, yielding the greatest travel efficiency and reliability while providing a revenue stream, giving us two ways to get the most benefit from our limited transportation budgets.

It is impossible for Washington to build its way out of congestion, yet it needs to upgrade highways that are functionally or structurally deficient. Pricing can help Washington make the most of its

limited infrastructure, by managing flow – in some cases, potentially eliminating or reducing the need for expensive construction. Pricing for system management also will generate revenue that can contribute to construction or rehabilitation of the system. Where management alone is not enough to address traffic and infrastructure needs on expensive parts of the system (e.g., bridges), tolls can supplement the funding of projects, as long as they are integrated within a comprehensive performance and management strategy.

Pricing highways to the extent described is not "business as usual" – it is a significant change from the current system. It will cause people to rethink the way they do business and the way they organize their lives, and that such rethinking may be uncomfortable. Questions 2 through 8 below address some of the main issues surrounding these changes.

Question 2
How should Washington determine which parts of the system to toll or price?

While pricing all highways may be the most effective way to manage transportation system performance, the reality is that such as system may be many years off. Washington needs a decision framework to determine where, when and how road pricing or tolling should be applied. The decision framework should depend on objective criteria applied consistently around the State, and should recognize the primary motivation involved in applying price to different parts of the system.

Tolling or pricing should be considered where these primary criteria are met:

1. Pricing optimizes system performance on new capacity. Examples would be new express toll lanes (with or without special treatment for HOV), or special toll lanes for trucks.

2. Pricing optimizes system performance on existing capacity, perhaps in lieu of an eventual need for new capacity. An example would be conversion of existing HOV and/or a general purpose lane to HOT or express toll lanes. Another example could be pricing existing freeway in a congested area to manage traffic into and within a specific area.

3. The cost of a project so high as to not be affordable using only normal tax-based funding.

4. Tolls yield enough money to support a defined proportion of the system construction, operations, and maintenance expenses.

These criteria presume that the transportation system component being evaluated provides enough benefits to warrant the cost of construction. In addition to the basic criteria above, supplemental criteria should be considered to protect against unintended consequences or impacts.

- **Diversionary Impacts –** The proposed tolling action should not cause unreasonable levels of diversion to other facilities that may not be able to handle the additional demand.

- **Operational Feasibility and Safety –** The pricing policies need to be carried out in a safe and effective way. If pricing causes degraded operations or undue safety problems, projects should not move forward.

- **Economic or Social Impacts –** If a proposed pricing strategy results in undue economic hardship or social impacts to particular segments of the population, that could either be cause to not move forward with the pricing project, or to make sure that such impacts are mitigated.

Question 3
What rules should govern use of toll revenue?

Traditionally, tolls were used to fund projects or systems of projects, and when the debt used to finance the projects was paid off, the tolls were removed. This was the case for the 14 toll bridges built in Washington, and is a general pattern historically around the United States. However, this approach did not provide for the eventual need for major capital repair or replacement after the tolls were removed.

The policy framework outlined in Questions 1 and 2 is one that emphasizes the importance of transportation facilities being operated as a system. This system perspective also should influence the use of toll revenues, with tolls used to:

- Pay for toll system operation and maintenance;

- Fund (in whole or in part) construction and maintenance of tolled highways, including capital rehabilitation; and

- Fund-related parts of the transportation system, potentially, including transit. Using toll revenue for transit can be helpful at addressing perceived issues of pricing benefiting only the rich.

A related question is whether toll revenues collected on specific facilities should be dedicated to a geographically constrained area. Managing tolling and pricing from a true system perspective would point towards no geographic constraints on the use of funds.

There also is a compelling reason for tolls to remain after the initial construction costs are paid off. First, the system management benefits of tolling cannot be achieved without the tolls. Second, highways and bridges are never really "paid off."

Capital rehabilitation is always needed for every transportation system, and there is evidence of this in Washington. Tacoma Narrows, Evergreen Point, Hood Canal, and Columbia River bridges were all tolled, yet it has been difficult to find funds for capital rehabilitation.

Question 4
What rules should govern setting toll rates?

The usual practice around the United States has been to set toll rates as low as possible and still cover annual debt service payments of a construction bond. However, a toll policy that puts system management objectives first needs to reflect other considerations.

Washington already has a statewide toll policy on the Washington State Ferries system. The ferry toll policy establishes tolls for vehicles, which vary by vehicle size, and for passengers, with a variety of special rates for particular groups such as seniors, youth, and frequent users. Ferry tolls also vary by the length of the route and include seasonal surcharges. However, the fares have no relationship to the specific capital or operating costs of particular routes – they are priced as a system. A system of highway toll facilities also could be operated and financed as a system with toll rates set on a system rather than a facility by facility basis.

When pricing purely for system management the objective is to manage traffic congestion. The prices, therefore, should be those that best achieve that result. In the case of a managed lane where the objective is to maximize flow and reliability in that lane, tolls

will need to rise to the level required to maintain the desired traffic flow.

When the revenue potential of a toll project is important, the issue becomes a little more complicated. The toll rates that maximize revenue might not be the same as those that maximize system efficiency.

As the Tacoma Narrows Bridge case illustrates, Washington also should be concerned about geographic equity. There are several potential approaches:

1. Develop a formula that allocates a baseline value for highway construction (potentially on a lane-mile basis). The difference between this value and the amount needed to actually construct the facility could be the basis for the amount that should be recovered from tolls. For example, if the average lane-mile of highway costs $10 million to build, and the highway under consideration for tolling costs $100 million, the difference – $90 million would be the basis for setting the toll amount.

2. Set a standard percentage of cost recovery that must be met by the toll project.

3. Using the Washington State Ferries model as an example, set the basic bridge toll at some level, say $3.00, and then adjust that level up or down to reflect different characteristics, such as vehicle length or construction cost. This could be applied to bridges, but may not be as applicable to other parts of the system.

There also may be situations where the funding is as important as traffic management. These cases may demand a unique toll-setting policy, designed to best achieve the stated objectives.

Question 5
What is the most appropriate governance and organizational structure?

There are numerous issues to consider when structuring governance and organization of tolling functions in Washington, and these are covered in detail in Background Paper No. 3 contained in Volume 2. At the top level, however, are three key concerns: 1) managing the customer's experience; 2) determining who decides when, where and how to toll; and 3) developing the most effective way to operate multiple facilities.

Virtually everyone involved in discussions of this topic (Commissioners, WSDOT, consultants) agreed that the toll customer experience should be consistent and simple across all toll facilities. This requires that there be a common means of toll collection using one "gizmo," one customer service number, and one invoice, implying that these functions should be centralized, and probably handled somewhere within the WSDOT organization.

The Commission's internal debate on governance issues found some favoring a strong state role in advancing parts of a tolled system, while others felt that the impetus should come from the regions. Regardless, there was consensus that the structure should allow for a way for regions or localities to initiate proposals for tolling within the framework of their normal transportation planning process. It is preferable for tolling to be "invited in" by a region, rather than having tolls be imposed by the State. Regional entities should have the option of placing funding packages before the public in referendum form that include both new funding sources and tolling.

Earlier in Question 2, we asked, "*How should Washington determine which parts of the system to toll or price*?" Part of our recommendation was to have objective criteria applied consistently around the State. The benefits and costs of solutions to manage congestion are most directly felt at the regional level, so a high level of regional involvement in these decisions is appropriate. The balance between local or regional initiative and consistent policy at the statewide level should account for these concerns:

- A way to combine funds from regional or local entities with state or Federal funds.

- A set of specific, consistent criteria, potentially administered through WSDOT, that should be met before tolling or pricing are implemented.

- A means of advancing projects that meet the policy criteria without Legislature action. The authority to approve such projects should rest with the Commission or some other statewide tolling authority, working with information provided by WSDOT.

Our discussions led to two similar, yet subtly different approaches to governance.

Centralized Statewide, whereby all project selection and configuration decisions are made centrally. Within this state-level function, however, localities or regions could initiate projects and work with

the central administration to advance them through the planning, design, construction, and operation process. Ultimate decision authority, however, would reside within this central body.

The advantages of this governance structure are that there is a single tolling agency for all levels of project and system development with the potential for close coordination with overall WSDOT project programming. This allows all tolling expertise to be assembled in a single organization, and is the most direct way to achieve statewide consistency in policy. A Statewide Tolling Oversight Committee, which could be the existing Transportation Commission would provide policy direction. Regional representation on this committee would provide some level of regional voice, although not as direct or as strong as under the second option.

The disadvantage of a centralized governance structure is that it may be less effective at generating local or regional support for tolling solutions than a structure with more direct regional initiative.

Regional plus Statewide, which allows local or regional tolling authorities to be created to advance projects or systems, with the State leading decision-making in rural areas or areas that cross regional boundaries. These regional authorities would collaborate with other regional entities on where or how to toll different parts of the system to advance regional goals. This builds upon the ideas that have led to the creation of Regional Transportation Improvement Districts, or similar regional entities. To avoid duplication of specialized functions and expertise, detailed project development, operations, and maintenance activities would always be carried out by WSDOT.

The chief advantage of this approach is that it allows regional champions to move projects and systems into the forefront rather than waiting for a state-level champion. The closer connection to the regional support base is viewed by many experts in the toll industry as critical to the success of urban toll facilities. As with the centralized statewide concept, the tolling expertise can be kept centralized.

The disadvantage of this approach is that it requires commitment to continual organizational and operational communication between the regional- and state-level toll agencies. There also is the potential for some redundancy in skills between the state- and regional-level.

Commission Recommendation

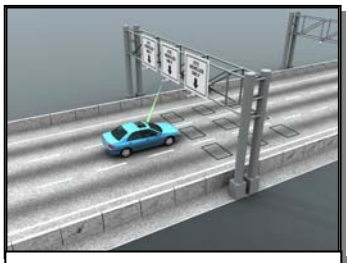
The commission weighed the desire for regional initiative with the importance of consistency of policy setting around the state. It recommends that governance of tolling be carried out through a centralized authority with robust and continuous regional input that includes the right to propose projects. In practice, this would mean that the centralized authority would set forth overall policy and criteria for determining which parts of the system could be tolled. Regions could initiate and pursue studies in accord with those criteria, and ultimately apply to the centralized authority for permission to toll. The centralized authority would be responsible for determining consistency with the criteria, and for setting toll rates.

The day-to-day administration of tolling operations, including system development functions (i.e., studies, design, system architecture, technology) would be by WSDOT.

Question 6
How do technology and toll operations influence statewide toll policy?

The most obvious technology consideration related to tolling is that customers expect a simple, interoperable toll system with a minimum of hassles. Delivering on these customer expectations is not trivial. Currently, WSDOT is working toward a system with a single customer service center and one point of contact for all operations. However, as toll facilities outside of the Puget Sound Region develop, there may be a need to consider regional customer service operations. And, if private companies are invited to develop toll facilities, there is an additional layer of complexity.

With recent advances in toll collection technology, it is reasonable to ask whether there is still a role for manual toll collection. In the immediate term, toll collection at highway speeds without toll attendants (called "open road tolling") is appropriate for high volume, urban settings with limited right-of-way, including all express toll and HOT lanes. Open road tolling should be combined with manual toll collection at lower volume locations with a lower percentage of repeat customers. Over time, technology and national standards are likely to develop to the point that manual toll collection would not be required anywhere.



Open road tolling allows vehicles to pay tolls without stopping at toll booth.

Moving to open road tolling brings up privacy issues. To date, participation in electronic toll collection programs has been voluntary. Any toll system that requires the use of electronic toll

collection will mandate the identification of individual vehicles, which in theory could be used to record time, location, and speed of travel. At least some segment of the population will oppose any new technology that may enable the government to monitor their movements.

Current Washington State law prohibits the release of individual toll collection records to third parties, but does allow media access to transit smart card information. Once open road tolling, which will enable toll collection without transponders, is deployed the same protection should be extended to the patrons without transponders.

Question 7
How do equity, fairness, and uniformity issues influence toll policy?

Geographic *equity refers to issues surrounding how one part of the State is treated compared to another.*

Income equity *refers to concerns about the ability of low-income people to access tolled facilities.*

Proposed projects in numerous states have failed due to the perceived inequity associated with tolls and pricing. Even in areas with existing toll facilities, new toll proposals are not immune from fairness criticisms. Common criticisms include: "We've already paid for this road," or, "It's not fair I must pay a toll, when XYZ community across town does not," or "tolling my project frees up funds to be used elsewhere in the state" or, "Toll roads only benefit the rich." Left unanswered, these issues of geographic and income equity may overwhelm public opinion and potentially elicit legal concerns.

There are no easy answers to what is fair from a geographic perspective. Selecting any project (tolled or not) in an environment of resource shortfall relative to needs involves a political choice. Political choices, by their nature, involve winners and losers for any given snapshot of time. Therefore, the framework for choosing toll policies and projects over an extended period of time must be consistent and the process must be fair. What this means is that any toll policies that might emerge from this study should be carried out statewide, and incorporated into the larger project development and selection process.

Sometimes, economically disadvantaged populations cannot take advantage of the benefits of tolled projects. For example, if using a toll project requires a transponder, and you need a credit card or bank account to get one, then some people are denied access to the project. Such a concern can be addressed by allowing cash accounts or other ways of using the system. In other cases there may be concerns about people's ability to pay the tolls, especially if there are no alternatives. In these cases, the use toll revenue to

subsidize transit services, or toll payment assistance could be appropriate.

It is important to remember that toll projects are intended to bring benefits to the communities that they serve – benefits that might not occur if the project did not happen.

Question 8
What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

The legislation mandating this study[3] directed "the development of more uniform and equitable policies regarding the distribution of financial obligations imposed on those paying the tolls on the Tacoma Narrows Bridge." The implication of these words is that the Legislature may consider the current policies to be *less* uniform and equitable than desired. We understand the concerns of Tacoma Narrows Bridge users to be as follows:

- With the exception of ferries, the Tacoma Narrows Bridge will be the only toll facility in Washington, and tolls pay for almost 100 percent of the new span.[4]

- There are other high-value/high-cost facilities in the State that are not tolled.

- Although there are tolls on the ferries, tolls pay none of the capital costs, and only part of the operating cost

- Therefore, users of the Tacoma Narrows Bridge feel they have been singled out for special treatment, in that they will have to pay tolls, while users of other facilities do not. This is the source of the characterization of the tolls on the Tacoma Narrows Bridge as less uniform and equitable.

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[3] *ESSB 6091, Section 206, (1)(a).*

[4] WSDOT indicates that there are significant portions of the SR 16/ Tacoma Narrows Bridge projects that are paid for by tax revenues; therefore, the project is not 100 percent paid for from tolls. However, this does not change the fact that Tacoma Narrows currently is the only nonferry toll project in the State.

About Tacoma Narrows Bridge Tolls

The proposed toll structure for the Tacoma Narrows Bridge (TNB) involves a $3.00 eastbound toll for all vehicles once the new bridge opens in 2007, with toll increases every three years in $1.00 increments until a maximum auto toll of $6.00 is reached in 2016. Starting in 2008, vehicles with more than two axles would be charged a higher toll in proportion to the number of axles (capped at a six-axle maximum toll). These were the toll rates that WSDOT used in developing its financial plan for the bridge project in 2002, and are subject to change based on the Commission's toll-setting authority.

WSDOT has studies underway looking at alternative toll rates that would achieve the goals of rapid market penetration of electronic transponders, effectively managing traffic, and motorist and user satisfaction. Some of these toll schedules might involve differential rates by user category and/or time of day.

The bonds for the Tacoma Narrows Bridge are obligations of the motor vehicle fuel tax fund. State law says:

- TNB toll collections **must** be adequate to semi-annually fully reimburse the motor vehicle fund;
- Tolls **must** remain on until bonds are repaid;
- Tolls **must** be removed when bonds are repaid; and
- Tolls **may** be used to fund operations and maintenance, but unless legislature provides these funds, tolls must cover these expenses

In practice, any transfers to the TNB fund will lessen the toll levels required to fully reimburse the motor vehicle fund – a "buy-down." The bottom line is that the Commission does not have the authority to take action to reduce expected toll revenue needed to meet state law. Therefore, the only action that the Commission may take to reduce the amount of money paid by direct users of the Tacoma Narrows Bridge is to recommend to the Legislature that additional budget be provided to make up any shortfall. However, revenue-neutral changes in toll structure are allowed.

Alternative Tolling Approaches

We looked at three general approaches to changing the toll structure on the Tacoma Narrows Bridge.

The first approach involved allowing frequent users to have reduced toll rates (**Scenario 1**). There are numerous ways to do this, but a typical plan might involve letting frequent users pay a $9.00 monthly fee to allow them half-price tolls, with increases in the fee and toll amounts as regular toll rates increase. Anyone making more than two trips across the TNB per week would benefit from this program, meaning that almost 55 percent of trips would receive a frequent user discount. This is projected to result in 4.7 million more vehicle trips (+1.18 percent) and a $358.3 million loss in revenue (-16.14 percent) over the 2007 to 2030 forecast period. There will also be some additional operations costs associated with administration of the TNB Discount Program. The revenue shortfall would need to be made up from other sources or from increases in the toll for those who are not frequent users.

Someone using the bridge twice per week would save 13 percent, and someone using the bridge five times per week would save 36 percent on tolls. Higher frequencies would see higher savings. Discounts for frequent users do shift the financial burden of paying for the bridge from those users. This discount plan, however, does potentially work at cross-purposes to other potential objectives of tolling on Tacoma Narrows Bridge, i.e., to manage traffic flow.

WSDOT is in the process of conducting studies of alternative toll schedules to these goals of the Tacoma Narrows Bridge "Good To Go" tolling program: 1) rapid market penetration of toll transponders; 2) reduce and manage backups at the toll plaza during the morning commute, especially during the first week of operation and during rehabilitation of the existing span; and 3) maintain a high level of "Good to Go" user satisfaction. Those studies are expected to be complete in spring 2006, and will be used to inform the Commission's deliberations on toll setting on the Tacoma Narrows Bridge.

The second approach involves reducing the amount of tolls paid by all bridge users, i.e., a buy down of the toll amount. In Scenario 2, the opening year toll would be reduced to $2 for passenger cars (instead of $3), with scheduled toll increases topping out at $5 in 2016 (instead of $6). This would result in a shortfall of $391 million over the life of the bonds (through 2030), or 18 percent of total toll collections. Under Scenario 3, passenger car tolls would be kept constant at the opening year rate of $3, and would not increase with inflation. The impact of this would be even more significant, with a $942 million (42 percent) shortfall that would need to be made up from other sources.

Any of Scenarios 1 through 3 would require that the Legislature find substitute funding to cover the lost toll revenue. The geographic equity issue at TNB could be addressed in a different way, as in Scenario 4.

Scenario 4 does not involve any changes to the toll rate on the Tacoma Narrows Bridge. Rather, it relies on future policy decisions that might be made by the Legislature. If significant use of tolls is advanced to fund major projects in Washington, then customers of the Tacoma Narrows Bridge will no longer be a special case. This is not to say that there might not be details to be worked out related to equitable toll amounts on future toll projects, but that issue is being addressed in the remainder of the tolling study.

Commission Recommendation

The main issue at the Tacoma Narrows Bridge is that users of that facility will be the only highway users (with the exception of those using ferries) that have to pay a toll. This Comprehensive Tolling Study outlines a broad strategy for advancing tolling in Washington in numerous ways. If the Legislature accepts these recommendations, Tacoma Narrows Bridge users will no longer be the only toll payers in the State, thereby accomplishing the directive to develop a more uniform and equitable policy regarding the distribution of financial obligations.